MACHINE DESIGN

1956 ANNUAL INDEX

Volume 28—January to December

Author Index

A

Albin, A. L. and H. M. Sachs—"Radio Interference Reduction," Sept. 6, p. 124
Alger, P. L. and Y. H. Ku—"Controlling Induction Motors," Nov. 29, p. 142
Altman, J. W. and J. D. Folley Jr.
"Designing Electronic Equipment
Part 1," June 14, p. 94
Part 2—Units, Assemblies and Subassemblies," June 28, p. 70
Part 3—Design of Covers and Cases," July 12, p. 94
Part 4—Wiring, Cables and Connectors," July 26, p. 92
Part 5—Maintenance Accesses," Aug. 9, p. 99
Part 6—Test Points," Sept. 6, p. 115
Part 7—Maintenance Controls," Sept. 20, p. 109
Part 8—Displays," Oct. 4, p. 96
Part 9—Installation," Oct. 18, p. 135
Part 10—Maintenance Auxiliaries," Nov. 15, p. 111
Part 11—Maintenance Procedures," Dec. 13, p. 124
Part 12—Maintenance Information and Instructions," Dec. 27, p. 86
Alvord, H. H. and K. W. Hall
"Testing Gears," July 26, p. 95
"Nylon Plastic Gears," Sept. 6, p. 120
Alvord, Herbert H.—"Sliding Gears," Jan. 26, p. 69
Amber, G. H. and H. R. Carrier—"Packaging the Engineer," Sept. 6, p. 72
Angel, Richard T.—"Cold Roll Forming," Dec. 13, p. 106
Appleby, E. C.—"Principal Stress," May 17, p. 103
Appleton, C. T.—"Thread and Form Rolling," Jan. 26, p. 101
Arnold, John E.
"Personal Development—an individual approach," Jan. 12, p. 95
"Creative Potential," May 3, p. 119
Auman, Reiner J.—"Brake Design," June 14, p. 135

B

Bacheler, A. T. and C. G. Helmick
"Adjustable-Frequency AC Drives," Sept. 20, p. 145
"Adjustable-Frequency Drives," Oct. 18, p. 142
Baker, W. W.—"Digital and Analog Computers," Feb. 9, p. 134
Ballou, Richard P.—"Applying the Torque Motor," Jan. 12, p. 143
Barriage, J. B. and A. J. Durelli—"Pressurized Square Tubing," Mar. 8, p. 115
Baxter, A. N.—"Using Dictation Equipment," Dec. 13, p. 94
Bayer, Lad J.—"Controlling Manufacturing Costs," Aug. 9, p. 119
Beckim, Russell W.—"Closure Seals," Sept. 6, p. 97
Begg, Stuart and Walton Yerger—"Tapping Screws for Plastics," June 28, p. 97
Benson, Arne
"Gear Ratios," Feb. 23, p. 103
"Gear Ratios," Mar. 8, p. 108
Black, W. R.—"Molded Plastic Fasteners," Sept. 20, p. 121
Blomquist, R. F.—"High-Strength Adhesives," May 31, p. 99
Blye, Harold—"Merit Evaluation System," May 31, p. 78
Bobco, R. P., A. L. Gosman and F. R. Campbell—"Column Design," Dec. 13, p. 137
Bock, W. K.—"Why Specify Ductility?" Jan. 12, p. 133
Bogardus, F. J.—"Intermittent-Motion Mechanisms," Sept. 20, p. 124
Botstiber, D. W. and L. Kingston—"Cycloid Speed Reducer," June 28, p. 65
Braley, S. A., Jr.—"Silicone Rubber," Oct. 4, p. 123
Breedon, D. B.—"Analog and Digital Computers," Dec. 13, p. 140
Briggs, C. W., E. B. Evans and L. J. Ebert—"Cast and Wrought Steels," Nov. 15, p. 128
Bright, R. L.—"Silicon Rectifiers," May 17, p. 110
Brown, Russell V.—"Numbering Systems," May 17, p. 106
Brueggeman, L. T.—"V-Belt Drive Bearing Loads," Mar. 22, p. 137
Buchanan, T. C.—"Small Rivets," Aug. 23, p. 96
Burwell, Stanley J.—"Drafting Short Cuts," Aug. 9, p. 83

C

Campbell, F. R., A. L. Gosman and R. P. Bobco—"Column Design," Dec. 13, p. 137
Candee, Allan H.—"Involute Gear Teeth," May 17, p. 90
Carrier, H. R. and G. H. Amber—"Packaging the Engineer," Sept. 6, p. 72
Cason, Durward—"Tapered Cantilever Beams," Nov. 1, p. 113
Cattabiani, Eugene J.—"Pivoted-Shoe Radial Bearings," Dec. 27, p. 63
Charron, G., G. Dewey and V. Paquet—"Large Perspectives Simplified," Dec. 13, p. 102
Cheney, A. J.
"Designing with Nylon
Part 1," Feb. 23, p. 95
Part 2," Mar. 8, p. 95
Cheney, A. J., W. B. Happoldt and K. G. Swayne—"Designing Plastic Bearings," June 14, p. 143
Clark, C. L.—"Materials for High Temperatures," May 31, p. 95
Clements, B. B.—"Bolted Flange Joints," Nov. 15, p. 119
Cohn, Charles C.—"Plating Metal-Powder Parts," Mar. 8, p. 113
Corten, H. T., G. M. Sinclair and T. J. Dolan—"Titanium Alloys," Apr. 5, p. 134
Covner, Bernard J.—"Job-Performance Interviews," Nov. 15, p. 76
Cowie, Alexander—"Stepped and Tapered Shafts," Aug. 9, p. 111
Cram, W. D.—"Cam Design," Nov. 1, p. 92
Crocker, W. S. and H. H. P. Lemmerman—"Fusion-Temperature Controls," Dec. 13, p. 115

D

Denavit, J. and R. S. Hartenberg
"Men and Machines," May 3, p. 74; June 14, p. 101; July 12, p. 84
"Kinematic Synthesis," Sept. 6, p. 101
Dewey, G., V. Paquet and G. Charron—"Large Perspectives Simplified," Dec. 13, p. 102
DiTirro, D. A.—"All-Pneumatic Control Circuit," Mar. 22, p. 120
Dix, E. M., Kronenberg and P. Maker—"Controlling Vibration," July 12, p. 103
Dochat, E. G. and T. Mariner—"Flexural Damping Materials," Apr. 19, p. 119
Dolan, T. J., G. M. Sinclair and H. T. Corten—"Titanium Alloys," Apr. 5, p. 134
Drescher, E. W.—"Miniature Screws," Aug. 23, p. 139
DuBois, W. H.—"Metal-Ceramic Friction Materials," Nov. 29, p. 139
Dudnick, Sol—"Geneva Mechanisms," Dec. 27, p. 91
Durelli, A. J. and J. B. Barriage—"Pressurized Square Tubing," Mar. 8, p. 115
Durham, Harold M.—"Involute Gear Tooth Layout," May 3, p. 117

E

Elbert, L. J., E. B. Evans and C. W. Briggs—"Cast and Wrought Steels," Nov. 15, p. 128
Evans, E. B., L. J. Ebert and C. W. Briggs—"Cast and Wrought Steels," Nov. 15, p. 128

F

Fangemann, M. Gerard—"Spring Alloys," May 31, p. 121
Farnsworth, G. B. and S. P. Jackson—"Germanium Power Rectifiers," Jan. 26, p. 71
Favre, A. E.—"Designing Aluminum Forgings," Jan. 26, p. 76
Ferrari, E. and R. H. Koepf—"Prototype Appearance Models," Mar. 8, p. 118
Fogiel, Max—"Selecting Gear Ratio with Limit Stops," Nov. 1, p. 108
Folley, J. D. Jr. and J. W. Altman
"Designing Electronic Equipment
Part 1," June 14, p. 94
Part 2—Units, Assemblies and Subassemblies," June 28, p. 70
Part 3—Design of Covers and Cases," July 12, p. 94
Part 4—Wiring, Cables and Connectors," July 26, p. 92
Part 5—Maintenance Accesses," Aug. 9, p. 99
Part 6—Test Points," Sept. 6, p. 115
Part 7—Maintenance Controls," Sept. 20, p. 109
Part 8—Displays," Oct. 4, p. 96
Part 9—Installation," Oct. 18, p. 135
Part 10—Maintenance Auxiliaries," Nov. 15, p. 111
Part 11—Maintenance Procedures," Dec. 13, p. 124
Part 12—Maintenance Information and Instructions," Dec. 27, p. 86
Fortini, Earlwood T.
"Dimension Control in Design
Part 1—Fundamentals: Precision and Accuracy," Apr. 5, p. 82
Part 2—Tolerance Zones; Related Dimensions," Apr. 19, p. 112
Part 3—Limit Dimensioning Methods for Analyzing Mechanism Trains," May 3, p. 92
Part 4—Limit Dimensioning Methods for Determining Tolerances," May 17, p. 79
Part 5—Probability Dimensioning Methods for Analyzing Mechanism Trains," June 14, p. 113
Part 6—Probability Dimensioning Methods for Determining Tolerances," June 28, p. 82
Part 7—Practical Considerations in Applying Dimension Control Methods," July 12, p. 110
Fosburg, P. L.—"Hydraulic Torque Converters," Apr. 5, p. 126
Francis, Howard T.—"Corrosion-Resistant Structural Materials, May 31, p. 104
Frost, P. D.—"Light Alloys," May 31, p. 86
Fuller, Dudley D.—"Journal Bearings," Feb. 9, p. 119

G

Gates, G. H. and W. M. Larson—"Polyurethane Rubber," Sept. 20, p. 150
Gatwood, E. H.—"Pressure Losses in Hydraulic Lines," Oct. 4, p. 113
Gebel, I.—"AC Push-Pull Solenoids," July 26, p. 100
Gerber, Lester—"Filing Engineering Drawings," Dec. 27, p. 93
Gillespie, C. M.—"Adding Machines as Calculators," Dec. 13, p. 113
Goetz, Harry C.—"How to Save Drafting Time," Jan. 26, p. 64
Gosman, A. L., F. R. Campbell and R. P. Bobco—"Column Design," Dec. 13, p. 137
Gould, Jay R.—"Improving Technical Writing," Apr. 5, p. 111
Gray, Albert Woodruff
"Design Patents," Jan. 12, p. 114
"Protecting Design Ideas," Mar. 8, p. 92
"Patent Licensing," Apr. 5, p. 90
"Patent Licenses and Assignments," June 14, p. 129
"Domestic Patent Applications and Foreign Patents," Oct. 4, p. 85
"Patents of Combinations," Nov. 15, p. 85
Greenwald, Frank S.—"Permanent Magnet Rotors," May 3, p. 122
Greer, Lanier—"Electrical Insulating Materials," May 31, p. 90

H

Hall, A. S., H. G. Laughlin and A. R. Holowenko— "Epicyclic Gear Systems," Mar. 22, p. 132; Nov. 29, p. 129
Hall, K. W. and H. H. Alvord
"Testing Gears," July 26, p. 95
"Nylon Plastic Gears," Sept. 6, p. 120
Hamme, Richard N.—"Acoustical Materials," July 26, p. 68
Hanau, Heinz—"Ball Bearings for Hhigh Speeds," Nov. 15, p. 88
Hanks, Sydney A.—"Metal-to-Metal Adhesives," Dec. 27, p. 78
Happoldt, W. B., A. J. Cheney and K. G. Swayne—"Designing Plastic Bearings," June 14, p. 143
Hartenberg, R. S. and J. Denavit
"Men and Machines," May 3, p. 74; June 14, p. 101; July 12, p. 84
"Kinematic Synthesis," Sept. 6, p. 101
Hathaway, Charles A.—Air Impellers," Oct. 4, p. 88
Heimann, Heinrich—"Retaining Ring Assemblies," Dec. 27, p. 67
Helmick, C. G.—"Selecting AC Motors," Apr. 5, p. 106
Helmick, C. G. and A. T. Bacheler
"Adjustable-Frequency AC Drives," Sept. 20, p. 145
"Adjustable-Frequency Drives," Oct. 18, p. 142
Herchenroeder, L. W.—"Numerical Coding Methods," June 28, p. 100
Herndon, Walter B.—"Planet Pinions," Mar. 22, p. 142
Hill, Henry C.—"Small Gas Turbines," Feb. 9, p. 133
Himelblau, Harry Jr.—"Dynamic Vibration Absorbers," Sept. 20, p. 134
Hinkle, R. T., Ching-u Ip ad I. E. Morse, Jr.—"Rolling Contact Mechanisms," July 26, p. 75
Hix, C. F. Jr.—"Planned Training—a composite method," Jan. 12, p. 96
Holowenko, A. R., H. G. Laughlin and A. S. Hall—"Epicyclic Gear Systems," Mar. 22, p. 132; Nov. 29, p. 129
Howell, Glen H.—"Factors of Safety," July 12, p. 76
Hrudka, Robert F.—"Vacuum-Formed Plastic Parts," Mar. 22, p. 114
Huffman, C. J.—"Stepped Aluminum Extrusions," Nov. 1, p. 116
Humphrey, A. J.—"Electronic Drives," Nov. 15, p. 123
Huntress, Howard B.
"Multiple-Disk Clutches and Brakes," Mar. 8, p. 82
"Friction Brakes and Clutches," Apr. 5, p. 113

I, J

Ip, Ching-u, I. E. Morse Jr. and R. T. Hinkle—"Rolling-Contact Mechanisms," July 26, p. 75

Jackson, S. P. and G. B. Farnsworth—"Germanium Power Rectifiers," Jan. 26, p. 71
Johnson, A. Pemberton—"Development Technical Managers," July 26, p. 104
Johnson, R. C. and J. W. Sawyer—"Large Plastic Covers," Jan. 12, p. 145
Johnson, Ray C.
"Cam Mechanisms," Jan. 26, p. 85
"Geneva Mechanisms," Mar. 22, p. 107
"Controlled Spring Force," June 14, p. 131
"Minimizing Cam Vibrations," Aug. 9, p. 103
"Cam Profiles," Dec. 13, p. 129

K

Kaplan, J., and D. Marshall—"Spring Clutches," Apr. 19, p. 107
Keery, R. J.—"Areas of Circle Segments," Sept. 6. p. 119
Keller, R. G.—"High-Temperature Hydraulics," Aug. 9, p. 121
Kemper, John D.—"Simplifying Engineering Controls," June 28, p. 56
Kennicott, W. L.—"Fastening and Joining Carbides," Mar. 22, p. 122
Kennison, George F.—"Cycloidal-Motion Cams," Jan. 12, p. 141
Kerley, J. J., Jr.—"Vibration Power," Aug. 9, p. 93
Kimberly, E. E.—"The Engineer in Court," Aug. 23, p. 90
King, William C.—"Felt," Jan. 26, p. 91
Kingston, L. and D. W. Botstiber—"Cycloid Speed Reducer," June 28, p. 65
Kirkpatrick, James S.—"Drawn Titanium Parts," Aug. 23, p. 153
Kist, Karl E. "Modified Starwheels," Oct. 4, p. 100
Knudson, M. E.—"New NEMA Standards," July 12, p. 121
Koch, Robert H.—"Packing and Gasket Materials," May 31, p. 117
Koenig, J. H. and E. J. Smoke—"Ceramic Materials," Mar. 22, p. 139
Koepf, R. H. and E. Ferreri—"Prototype Appearance Models," Mar. 8, p. 118
Krause, R. A.—"Rubber," Apr. 19, p. 128
Kronenberg, M., P. Maker and E. Dix—"Controlling Vibration," July 12, p. 103
Ku, Y. H. and P. L. Alger—"Controlling Induction Motors," Nov. 29, p. 142
Kyropoulos, S.—"Oil-Groove Design in Bearings," June 14, p. 119
Kugler, A. N.—"Brazed Joints," Feb. 23, p. 116
Kyropoulos, S.
"Gear Lubrication
Part 3," Jan. 12, p. 137

L

Lahm, James J.—"Keeping a Technical File," Feb. 9, p. 91
Lanier, H. F.—"Large Engineering Projects," Dec. 27, p. 54
Larson, W. M. and G. H. Gates—"Polyurethane Rubber," Sept. 20, p. 150
Laughlin, H G., A. R. Holowenko and A. S. Hall—"Epicyclic Gear Systems," Mar. 22, p. 132; Nov. 29, p. 129
Lebens, John C.—"Fuses," Mar. 8, p. 77
Lemmerman, H. H. P. and W. S. Crocker—"Fusion-Temperature Controls," Dec. 13, p. 115
Letner, H. R.—"Residual Stresses," May 17, p. 112
Linsky, Chester
"Engineering Manpower 'Shortage,'" May 17, p. 62
"Training Design Engineers," Oct. 18, p. 92
Logan, George H.—"Physical Mechanics," Apr. 5, p. 121
Love, J. Jr., and O. A. Pringle—"Designing Bolts," June 28, p. 104
Lowe, Howell C.—"Hydraulic Pumps and Motors," July 12, p. 117
Lubahn, J. D.—"Applying Notch Tensile Tests," Feb. 23, p. 142
Lundquist, Ingemar—"Miniature Mechanical Clutches," Oct. 18, p. 124
Lupton, George W., Jr.—"Engineering on Government Contracts," Aug. 9, p. 76

M

Mabie, H. H.—"Beam Deflection," Feb. 9, p. 129
Macduff, J. N.
"Analog Simulators
Part 1—Analog Components and Mathematics," Aug. 9, p. 86
Part 2—How to Use the Simulator in Vibration Analysis," Sept. 6, p. 106
MacKenzie, Robert V.—"Translating Screw Threads," Nov. 29, p. 106
Magnus, Herbert A. —"Pressurized Cylinders," Feb. 23, p. 135
Maker, P., M. Kronenberg and E. Dix—"Controlling Vibration," July 12, p. 103
Mariner, T. and E. G. Dochat—"Flexural Damping Materials," Apr. 19, p. 119
Mark, M.—"Mohr's Circles," Jan. 12, p. 119
Marsh, Robert T.—"Simplified Report Writing," Jan. 26, p. 90
Marshall, D. and J. Kaplan—"Spring Clutches," Apr. 19, p. 107
Marshall, Donald—"Cantilever Beams," Jan. 26, p. 97
Martin, Louis D.—"Face-Gear Geometry," Oct. 4, p. 106
Marvin, Philip R.
"Successful Product Development," Jan. 26, p. 56
"Picking Profitable Products," Feb. 9, p. 80
"The Engineer's Problem," Mar. 8, p. 70
"Engineering Managament," Sept. 20, p. 94
"Evaluating Engineering Operations," Nov. 1, p. 74
"Engineering Organization," Nov. 20, p. 82
Mathues, Thomas O.—"Extruded Rubber," July 12, p. 126
Matthew, Morton P.—"Cardboard Mock-ups and Models," Oct. 4, p. 76
Mayers, H. R.—"Inventions in the Courts," June 14, p. 154
McNabb, Warren—"Generating Gear Root Fillets," Sept. 20, p. 105
Merz, Kenneth A.—"Air-Circuit Design," June 28, p. 88
Meyer, Raymond—"Flanged Connections," Nov. 1, p. 109
Mezoff, John G. and Peder E. Moluf—"Magnesium Castings," May 17, p. 101
Middleton, Marshall Jr.—"Digital Computers in Design," Feb. 23, p. 88
Miles, L. D.—"Product Improvement," Oct. 18, p. 148
Mohler, J. B.
"Sleeve Bearing Materials," May 3, p. 105
"Sleeve Bearing Materials," May 31, p. 108
"Soldered Joints," June 14, p. 123
"Oil Grooves for Sleeve Bearings," July 12, p. 99
Moluf, Peder E. and John G. Mezoff—"Magnesium Castings," May 17, p. 101
Moritz, J. M. and H. L. Stewart—"Making Hydraulic Circuits Safe," Nov. 15, p. 107
Morse, I. E., Jr., Ching-u Ip and R. T. Hinkle—"Rolling-Contact Mechanisms," July 26, p. 75
Moyer, Harris P.—"Preforming and Welding," Apr. 19, p. 148

N

Neidhart, John J.—"Lighting an Engineering Department," Mar. 22, p. 88
Nightingale, J. M.
"Automatic Control Systems," May 17, p. 70
"Servo Mathematics." June 28, p. 74
"Evaluating Servo System Performance
Part 1, " July 26, p. 78
Part 2," Aug. 9, p. 106
"Analyzing Servo Systems," Nov. 1, p. 87
"Hydraulic Servo Components
Part 1," Nov. 29, p. 114
Part 2," Dec. 13, p. 133
Part 3," Dec. 27, p. 73
Norton, J. T.—"Selecting Cermets," Apr. 19, p. 143

P

Paquet, V., G. Dewey and G. Charron—"Large Perspectives Simplified," Dec. 13, p. 102
Paret, Richard—"Using Stainless Steels," Oct. 18, p. 114

Jackson, S. P. and G. B. Farnsworth—"Germanium Power Rectifiers," Jan. 26, p. 71
Johnson, A. Pemberton—"Development Technical Managers," July 26, p. 104
Johnson, R. C. and J. W. Sawyer—"Large Plastic Covers," Jan. 12, p. 145
Johnson, Ray C.
"Cam Mechanisms," Jan. 26, p. 85
"Geneva Mechanisms," Mar. 22, p. 107
"Controlled Spring Force," June 14, p. 131
"Minimizing Cam Vibrations," Aug. 9, p. 103
"Cam Profiles," Dec. 13, p. 129

K

Kaplan, J., and D. Marshall—"Spring Clutches," Apr. 19, p. 107
Keery, R. J.—"Areas of Circle Segments," Sept. 6. p. 119
Keller, R. G.—"High-Temperature Hydraulics," Aug. 9, p. 121
Kemper, John D.—"Simplifying Engineering Controls," June 28, p. 56
Kennicott, W. L.—"Fastening and Joining Carbides," Mar. 22, p. 122
Kennison, George F.—"Cycloidal-Motion Cams," Jan. 12, p. 141
Kerley, J. J., Jr.—"Vibration Power," Aug. 9, p. 93
Kimberly, E. E.—"The Engineer in Court," Aug. 23, p. 90
King, William C.—"Felt," Jan. 26, p. 91
Kingston, L. and D. W. Botstiber—"Cycloid Speed Reducer," June 28, p. 65
Kirkpatrick, James S.—"Drawn Titanium Parts," Aug. 23, p. 153
Kist, Karl E. "Modified Starwheels," Oct. 4, p. 100
Knudson, M. E.—"New NEMA Standards," July 12, p. 121
Koch, Robert H.—"Packing and Gasket Materials," May 31, p. 117
Koenig, J. H. and E. J. Smoke—"Ceramic Materials," Mar. 22, p. 139
Koepf, R. H. and E. Ferreri—"Prototype Appearance Models," Mar. 8, p. 118
Krause, R. A.—"Rubber," Apr. 19, p. 128
Kronenberg, M., P. Maker and E. Dix—"Controlling Vibration," July 12, p. 103
Ku, Y. H. and P. L. Alger—"Controlling Induction Motors," Nov. 29, p. 142
Kyropoulos, S.—"Oil-Groove Design in Bearings," June 14, p. 119
Kugler, A. N.—"Brazed Joints," Feb. 23, p. 116
Kyropoulos, S.
"Gear Lubrication
Part 3," Jan. 12, p. 137

L

Lahm, James J.—"Keeping a Technical File," Feb. 9, p. 91
Lanier, H. F.—"Large Engineering Projects," Dec. 27, p. 54
Larson, W. M. and G. H. Gates—"Polyurethane Rubber," Sept. 20, p. 150
Laughlin, H G., A. R. Holowenko and A. S. Hall—"Epicyclic Gear Systems," Mar. 22, p. 132; Nov. 29, p. 129
Lebens, John C.—"Fuses," Mar. 8, p. 77
Lemmerman, H. H. P. and W. S. Crocker—"Fusion-Temperature Controls," Dec. 13, p. 115
Letner, H. R.—"Residual Stresses," May 17, p. 112
Linsky, Chester
"Engineering Manpower 'Shortage,'" May 17, p. 62
"Training Design Engineers," Oct. 18, p. 92
Logan, George H.—"Physical Mechanics," Apr. 5, p. 121
Love, J. Jr., and O. A. Pringle—"Designing Bolts," June 28, p. 104
Lowe, Howell C.—"Hydraulic Pumps and Motors," July 12, p. 117
Lubahn, J. D.—"Applying Notch Tensile Tests," Feb. 23, p. 142
Lundquist, Ingemar—"Miniature Mechanical Clutches," Oct. 18, p. 124
Lupton, George W., Jr.—"Engineering on Government Contracts," Aug. 9, p. 76

M

Mabie, H. H.—"Beam Deflection," Feb. 9, p. 129
Macduff, J. N.
"Analog Simulators
Part 1—Analog Components and Mathematics," Aug. 9, p. 86
Part 2—How to Use the Simulator in Vibration Analysis," Sept. 6, p. 106
MacKenzie, Robert V.—"Translating Screw Threads," Nov. 29, p. 106
Magnus, Herbert A. —"Pressurized Cylinders," Feb. 23, p. 135
Maker, P., M. Kronenberg and E. Dix—"Controlling Vibration," July 12, p. 103
Mariner, T. and E. G. Dochat—"Flexural Damping Materials," Apr. 19, p. 119
Mark, M.—"Mohr's Circles," Jan. 12, p. 119
Marsh, Robert T.—"Simplified Report Writing," Jan. 26, p. 90
Marshall, D. and J. Kaplan—"Spring Clutches," Apr. 19, p. 107
Marshall, Donald—"Cantilever Beams," Jan. 26, p. 97
Martin, Louis D.—"Face-Gear Geometry," Oct. 4, p. 106
Marvin, Philip R.
"Successful Product Development," Jan. 26, p. 56
"Picking Profitable Products," Feb. 9, p. 80
"The Engineer's Problem," Mar. 8, p. 70
"Engineering Managament," Sept. 20, p. 94
"Evaluating Engineering Operations," Nov. 1, p. 74
"Engineering Organization," Nov. 20, p. 82
Mathues, Thomas O.—"Extruded Rubber," July 12, p. 126
Matthew, Morton P.—"Cardboard Mock-ups and Models," Oct. 4, p. 76
Mayers, H. R.—"Inventions in the Courts," June 14, p. 154
McNabb, Warren—"Generating Gear Root Fillets," Sept. 20, p. 105
Merz, Kenneth A.—"Air-Circuit Design," June 28, p. 88
Meyer, Raymond—"Flanged Connections," Nov. 1, p. 109
Mezoff, John G. and Peder E. Moluf—"Magnesium Castings," May 17, p. 101
Middleton, Marshall Jr.—"Digital Computers in Design," Feb. 23, p. 88
Miles, L. D.—"Product Improvement," Oct. 18, p. 148
Mohler, J. B.
"Sleeve Bearing Materials," May 3, p. 105
"Sleeve Bearing Materials," May 31, p. 108
"Soldered Joints," June 14, p. 123
"Oil Grooves for Sleeve Bearings," July 12, p. 99
Moluf, Peder E. and John G. Mezoff—"Magnesium Castings," May 17, p. 101
Moritz, J. M. and H. L. Stewart—"Making Hydraulic Circuits Safe," Nov. 15, p. 107
Morse, I. E., Jr., Ching-u Ip and R. T. Hinkle—"Rolling-Contact Mechanisms," July 26, p. 75
Moyer, Harris P.—"Preforming and Welding," Apr. 19, p. 148

N

Neidhart, John J.—"Lighting an Engineering Department," Mar. 22, p. 88
Nightingale, J. M.
"Automatic Control Systems," May 17, p. 70
"Servo Mathematics," June 28, p. 74
"Evaluating Servo System Performance
Part 1, " July 26, p. 78
Part 2," Aug. 9, p. 106
"Analyzing Servo Systems," Nov. 1, p. 87
"Hydraulic Servo Components
Part 1," Nov. 29, p. 114
Part 2," Dec. 13, p. 133
Part 3," Dec. 27, p. 73
Norton, J. T.—"Selecting Cermets," Apr. 19, p. 143

P

Paquet, V., G. Dewey and G. Charron—"Large Perspectives Simplified," Dec. 13, p. 102
Paret, Richard—"Using Stainless Steels," Oct. 18, p. 114

Parish, J. M.—"Selecting Engineering Personnel," Nov. 29, p. 141
Pleuthner, Willard—"Brainstorming—a group attack," Jan. 12, p. 92
Ponstingl, John C.
"Electric-Motor Braking," Jan. 12, p. 103
"Static Electric Controls," Nov. 29, p. 89
Pringle, O. A. and J. Love Jr.—"Designing Bolts," June 28, p. 104
Prior, R. A.—"Voltage Regulators," May 17, p. 85
Pulsifer, V. and A. Siede—"Wear Evaluation," Jan. 12, p. 101
Pulsifer, Verne—"Materials for Wear Resistance," May 31, p. 126

R

Radzimovsky, Eugene I.—"Planetary Gear Drives," Feb. 9, p. 101
Ragland, Ben—"Fluid Couplings," May 3, p. 108
Rappaport, Sigmund
"Cam Profiles," Apr. 5, p. 120
"Shearing Moving Webs," May 3, p. 101
Riddle, Johnny—"Basic Ball Bearings," Feb. 23, p. 127
Rogerson, W. M.—"Aluminum Alloys for Welding," Apr. 19, p. 103
Rothbart, Harold A.
"Cam Dynamics," Mar. 8, p. 100
"Basic Cam Systems," May 31, p. 133
"Cam Design," Oct. 18, p. 107
Rounds, T. E.
"Lubrication Systems for High-Performance Ball Bearings," Sept. 20, p. 114
"Selecting Lubricants for High-Performance Ball Bearings," Oct. 18, p. 101

S

Sachs, H. M. and A. L. Albin—"Radio Interference Reduction," Sept. 6, p. 124
Saelman, B.
"Optimum Beam Design," Jan. 12, p. 125
"Friction in Mechanisms," Feb. 23, p. 123
"Round Tubes in Bending," Sept. 20, p. 141
"Rectangular and Elliptical Tubes," Oct. 18, p. 139
Saul, John R.—"Specifying Manufacturing Temperatures," Aug. 9, p. 91
Sawyer, J. W. and R. C. Johnson—"Large Plastic Covers," Jan. 12, p. 145
Schirmer, E. V.—"Designing for Magnesium," Feb. 23, p. 137
Scholten, Richard A.—"Magnetic Latches," Dec. 13, p. 146
Schwarz, B.—"AC and DC Electric-Motor Drive," Nov. 29, p. 120
Shepard, A. P.—"Flame-Sprayed Ceramic Coatings," Dec. 27, p. 96
Siede, A. and V. Pulsifer—"Wear Evaluation," Jan. 12, p. 101
Sinclair, G. M., H. T. Corten and T. J. Dolan—"Titanium Alloys," Apr. 5, p. 134
Smith, Edwin F.—"Helical Compression Springs," Apr. 19, p. 133
Smith, W. P. — "Designing and Manufacturing," Aug. 23, p. 158
Smoke, E. J. and J. H. Koenig—"Ceramic Materials," Mar. 22, p. 139
Smoley, Earl M.—"Gasketed Joints," May 17, p. 76
Soled, Julius—"Industrial Fasteners," Aug. 23, p. 105
Spotts, M. F.—"Hobbed Spur Gear Teeth," Apr. 19, p. 123
Stedfeld, Robert L.—"Earth Satellite," Nov. 1, p. 82
Stephens, W. T.—"Hydraulic System Components," Feb. 23, p. 108
Stewart, H. L. and J. M. Moritz—"Making Hydraulic Circuits Safe," Nov. 15, p. 107
Still, Edwin W.
"Library Keys for Engineers," July 26, p. 58
"Government Research Reports," Oct. 18, p. 99
Stone, J. James, Jr.—"Computers for Controls," Oct. 4, p. 119
Strasser, Federico
"Drawn Parts," Jan. 12, p. 121
"Strengthening Metal Stampings," Nov. 1, p. 104
Swayne, K. G., A. J. Cheney and W. B. Happoldt—"Designing Plastic Bearings," June 14, p. 143

T, U, V

Tarr, Allan L.—"Metals for Low Temperatures," May 31, p. 111
Thielsch, Helmut
"Designing Welded Joints for Dissimilar Steels," Apr. 5, p. 97
"Welding Composite Steels," May 3, p. 96
"Welding Composite Steels," July 26, p. 86
Thoen, Richard L.—"Precision Gears," Apr. 5, p. 93
Titchener, Paul F.—"Designing Wire Parts," Feb. 9, p. 111
Unholtz, Karl—"Vibration Test Specifications," Mar. 22, p. 100
Unverzagt, P. A.—"Blind Tapped Holes," July 26, p. 99
Veinott, C. G.—"Selecting Electric Motors," May 31, p. 140
Von Pechy, T. Thomas—"When to Commercialize Inventions," Sept. 20, p. 100

W, Y

Wagner, David E.—"Self-Sealing Fasteners," Aug. 23, p. 145
Wallenbrock, Ralph E.
"Fastening and Joining Plastic Parts," Feb. 9, p. 94
"Molded Plastic Parts," May 3, p. 85
Waltermire, William G.—"Interference-Fit Thread," Sept. 6, p. 83
Waterhouse, R. B.—"Fretting Corrosion," Jan. 26 p. 104
Weber, Theodore Jr.—"Cam Development by Evolute Analysis," Feb. 9, p. 117
Werley, G. L.—"Brass-Powder Parts," Jan. 26, p. 108
Willis, E. J.—"Magnesium Plaster-Mold Castings," Feb. 9, p. 131
Woolridge, Dean E.—"Systems Engineering," Nov. 1, p. 120
Yerger, Walton and Stuart Begg—"Tapping Screws for Plastics," June 28, p. 97
Yerger, Walton R.—"Fastener Finishes," Aug. 23, p. 149

Subject Index

A

Accelerometers, May 17, p. 144; May 31, p. 176; Aug. 23, p. 212; Oct. 18, p. 197; Dec. 27, p. 113
Acoustical materials, July 26, p. 68
Actuator, linear, Feb. 9, p. 156
Actuators, Aug. 9, p. 170; Aug. 23, p. 5; Sept. 6, p. 8, 81, 180; Sept. 20, p. 200; Oct. 18, p. 238; Oct. 18, p. 139, 148; Nov. 15, p. 192; Nov. 29, p. 106, 182; Dec. 13, p. 100
Adding machines as calculators, Dec. 13, p. 113
Adhesives, Feb. 9, p. 145; May 3, p. 6; May 31, p. 99; Aug. 23, p. 206; Oct. 4, p. 150; Nov. 15, p. 171; Dec. 27, p. 108
for materials handling, Nov. 29, p. 88
metal-to-metal, Dec. 27, p. 78
Air circuits, June 28, p. 88
Air conditioning, Mar. 22, p. 206; May 3, p. 198
Air impellers, Oct. 4, p. 88
Airplane refueling, in flight, May 31, p. 10
Aluminum and alloys, Jan. 26, p. 10, 70, 76; Apr. 19, p. 103, 164; Aug. 23, p. 147
Aluminum extrusions, stepped, Nov. 1, p. 116
Aluminum foil, Apr. 19, p. 163
Amplifiers, July 26, p. 112; Oct. 18, p. 191; Dec. 27, p. 113
Analog simulators, Aug. 9, p. 86
Antenna, vacuum operated, May 3, p. 107
Appearance models, prototype, Mar. 8, p. 118

Assembly machine, automatic, June 14, p. 110
Automobiles, May 17, p. 6
  1956, Jan. 12, p. 6
  1957, Nov. 15, p. 10; Nov. 29, p. 10; Dec. 13, p. 10; Dec. 27, p. 12
  small, Nov. 29, p. 8
Autotransformers, Mar. 8, p. 159

B

Balancing machine, May 31, p. 116
Ball-bearing lubricants, Oct. 18, p. 101
Balls, Mar. 8, p. 136; June 28, p. 114
Band saw, large, Apr. 5, p. 104
Batteries, Feb. 9, p. 14; May 17, p. 12; Sept. 20, p. 6; Dec. 13, p. 162
  sun, Apr. 5, p. 148
Beam deflection due to shear, Feb. 9, p. 129
Beam design, Jan. 12, p. 125
Beams, cantilever, Jan. 26, p. 97
Bearing housing caps, May 3, p. 150
Bearing loads, V-belt drive, Mar. 22, p. 137
Bearing materials, May 3, p. 105; May 31, p. 108; Sept. 6, p. 182; Oct. 4, p. 176
Bearings, air, Oct. 4, p. 15
  ball, Feb. 23, p. 127; Mar. 22, p. 155; May 3, p. 83; May 31, p. 153; Sept. 20, p. 114; Oct. 18, p. 101; Dec. 27, p. 104
  ball, for high speeds, Nov. 15, p. 88
  linear motion, Dec. 13, p. 160
  pivoted-shoe radial, Dec. 27, p. 63
  rod-end, Apr. 5, p. 152; Nov. 29, p. 164
  roller, May 31, p. 153; Aug. 9, p. 82; Nov. 15, p. 192
  sleeve, Jan. 12, p. 99; Feb. 9, p. 119, 142; Mar. 22, p. 169; May 3, p. 139; June 14, p. 119, 143; July 26, p. 118; Sept. 6, p. 150; Nov. 15, p. 168; Nov. 29, p. 164
  spin, Oct. 18, p. 240
  thrust, July 26, p. 118; Aug. 23, p. 103
Bellows, Jan. 26, p. 149
Belts, conveyor, May 31, p. 6; Oct. 4, p. 15; Dec. 27, p. 106
  transmission, Apr. 5, p. 154; Aug. 9, p. 132, 141; Oct. 4, p. 105; Dec. 27, p. 106
Blind tapped holes, July 26, p. 99
Blowers, Feb. 23, p. 152; May 31, p. 172; June 14, p. 206; June 28, p. 88, 116; July 12, p. 172; Aug. 9, p. 138; Sept. 20, p. 184; Oct. 4, p. 138, 152
Boats, plastic, June 28, p. 14
Boots, toggle-switch, July 12, p. 176
Brakes, Jan. 26, p. 63; Feb. 23, p. 154; Mar. 8, p. 82, 184; Apr. 5, p. 113; Apr. 19, p. 170; May 3, p. 139; June 14, p. 135; July 12, p. 143; Aug. 9, p. 132; Sept. 6, p. 146; Sept. 20, p. 190; Oct. 4, p. 160, 176; Oct. 18, p. 240; Dec. 13, p. 191
Braking, electric-motor, Jan. 12, p. 103
Brass (see copper and alloys)
Brazing, Feb. 23, p. 116; Oct. 18, p. 97
  tube, Jan. 26, p. 12
Bronze (see copper and alloys)
Bushings, ball, Dec. 13, p. 160

C

Cabinets, Oct. 18, p. 170; Dec. 13, p. 236
Cables, electric, July 26, p. 92
Calculators, adding machines as, Dec. 13, p. 113
Camera, movie, Apr. 19, p. 196
Cameras, high-speed, Oct. 18, p. 122
Cams, Jan. 12, p. 141; Jan. 26, p. 85; Feb. 9, p. 117; Mar. 8, p. 100; Apr. 5, p. 120; Aug. 9, p. 81, 103; Oct. 18, p. 107; Nov. 1, p. 92; Dec. 13, p. 129
Capacitors, Jan. 12, p. 180; Feb. 9, p. 158; Mar. 8, p. 162; May 17, p. 14; Aug. 9, p. 130
Caps, bushing, May 31, p. 174
Carbides, fastening and joining, Mar. 22, p. 122
Cardboard mockups, Oct. 4, p. 76
Cases, instrument, Sept. 20, p. 193
Cases and covers, July 12, p. 94
Castings, continuous, Sept. 20, p. 12
  die, Jan. 12, p. 15; June 14, p. 112; July 26, p. 85; Aug. 23, p. 147
  die, cold-forming, Nov. 29, p. 88
  investment, Jan. 26, p. 60
  light alloy, Feb. 9, p. 131; May 17, p. 101; Aug. 23, p. 138
  steel, Apr. 19, p. 8; Nov. 15, p. 128
Cast iron, threaded, Nov. 29, p. 172
Center of gravity, locating, May 3, p. 104
Ceramic materials, Mar. 22, p. 139
Ceramics, Dec. 27, p. 96
Cermets, Apr. 19, p. 143
Chain, transmission, May 3, p. 206; May 17, p. 128; July 12, p. 176
Chuck, locking, Mar. 8, p. 76
Circle locations, Feb. 23, p. 126
Circle segments, areas of, Sept. 6, p. 119
Circuit breakers, Dec. 27, p. 110
Circuits, etched, May 3, p. 142
  printed, May 3, p. 148
  standardized, Jan. 12, p. 5
Clamping, cam-actuated, Nov. 15, p. 118
Clamps, May 31, p. 163; June 14, p. 200, 222; Dec. 13, p. 101, 160
Cleats, motor-mount, Oct. 18, p. 185
Clock, astronomical, Mar. 22, p. 12
Clothes dryer with moisture condenser, Feb. 23, p. 122
Clothing for engineers, Sept. 6, p. 72
Clutches, Jan. 12, p. 203; Jan. 26, p. 96, 152; Feb. 9, p. 89, 192, 194; Feb. 23, p. 160; Mar. 8, p. 82, 186; Mar. 22, p. 162, 216; Apr. 5, p. 89, 113, 144; Apr. 19, p. 12, 101, 107, 160, 216, 218; May 3, p. 139; May 17, p. 68, 69, 158, 160; May 31, p. 192, 194; June 14, p. 260, 264, 265; June 28, p. 142; July 12, p. 210; July 26, p. 67; Aug. 9, p. 132; Aug. 23, p. 185, 262; Sept. 6, p. 134; Sept. 20, p. 184; Oct. 4, p. 132, 174, 176; Oct. 18, p. 240; Nov. 1, p. 80, 150; Dec. 13, p. 160, 177; Dec. 27, p. 104, 119
  miniature mechanical, Oct. 18, p. 124
Coatings (see also Finishes)
Coatings, protective, Jan. 12, p. 164; Mar. 8, p. 5; Apr. 5, p. 12; Apr. 19, p. 14; May 17, p. 10; June 14, p. 208; July 26, p. 124; Sept. 20, p. 15; Nov. 15, p. 148; Dec. 13, p. 180, 194; Dec. 27, p. 96
Coding methods, numerical, June 28, p. 100
Coffee vending machine, Mar. 22, p. 14
Cold roll forming, Dec. 13, p. 106
Collars, shaft, Feb. 23, p. 154
Collets, Feb. 9, p. 89
Columns, Dec. 13, p. 137
Combinations, patents of, Nov. 15, p. 85
Comparator on grinder, Mar. 8, p. 107
Compression forming, Aug. 23, p. 6
Compressors, Dec. 13, p. 234
Computer components, July 26, p. 112; Aug. 9, p. 136; Aug. 23, p. 178; Sept. 20, p. 158; Dec. 27, p. 62
Computers, Feb. 9, p. 134; Feb. 23, p. 88; Apr. 5, p. 6, 12; May 17, p. 5; June 14, p. 6; July 12, p. 6; Aug. 9, p. 86, 154; Aug. 23, p. 214; Sept. 6, p. 106; Oct. 4, p. 119; Oct. 18, p. 194; Nov. 1, p. 141; Dec. 13, p. 113, 140, 200
  electronics, Jan. 26, p. 5, 15
Condensers, May 17, p. 142
Conduit, Aug. 9, p. 132
  plastic, Apr. 5, p. 152
Connections, flanged, Nov. 1, p. 109
Connectors, electric, Jan. 12, p. 174; Feb. 9, p. 163; Feb. 23, p. 154; Mar. 22, p. 155, 168; Apr. 5, p. 158; May 17, p. 124, 130; May 31, p. 156; June 14, p. 220; June 28, p. 130; July 26, p. 92; Aug. 9, p. 144, 148; Aug. 23, p. 12, 190; Oct. 18, p. 182; Nov. 1, p. 127, 136; Dec. 13, p. 172
Contacts, Dec. 27, p. 110
Contents, Feb. 9, p. 10; May 3, p. 6
Control, torque, Nov. 29, p. 119
Control panels, June 14, p. 99
Control systems, automatic, May 17, p. 70
  electric, Jan. 12, p. 183; Mar. 8, p. 134; May 3, p. 177; July 26, p. 122; Aug. 9, p. 82; Oct. 4, p. 144; Nov. 29, p. 86, 89, 120, 142, 166; Dec. 13, p. 122, 182
  hydraulic, Aug. 9, p. 121; Sept. 6, p. 80; Nov. 15, p. 155; Dec. 13, p. 122
  pneumatic, May 3, p. 170
Controls, automatic, Jan. 12, p. 22, 100, 118; Jan. 26, p. 6; Feb. 9, p. 142, 158, 192; Mar. 8, p. 136, 144; May 17, p. 123; May 31, p. 5; June 14, p. 230; June 28, p. 100; July 12, p. 162, 174; July 26, p. 112, 115; Aug. 9, p. 132; Sept. 20, p. 132; Oct. 18, p. 12; Nov. 1, p. 81; Nov. 29, p. 86; Dec. 13, p. 168; Dec. 27, p. 111
  cable, May 17, p. 123

computer, Oct. 4, p. 119
electric, Feb. 23, p. 174; Mar. 8, p. 22, 75; Mar. 22, p. 183; Apr. 5, p. 196; June 28, p. 131; July 12, p. 174; Aug. 23, p. 95; Sept. 20, p. 109; Nov. 29, p. 89
fusion-temperature, Dec. 13, p. 115
hydraulic, May 17, p. 123
mechanical, Feb. 23, p. 154; May 17, p. 158, 160; July 12, p. 148; Sept. 20, p. 98, 244; Nov. 15, p. 84, 143
pneumatic, Mar. 8, p. 134; Mar. 22, p. 120; Aug. 9, p. 170; Sept. 20, p. 198
temperature, Oct. 4, p. 134
Converter, analog-digital, July 26, p. 112
Conveyors, Oct. 4, p. 6
Copper and alloys, Jan. 12, p. 169; Jan. 26, p. 108; Aug. 9, p. 5; Dec. 13, p. 188
Corners, spherical, May 3, p. 140
Corrosion-resistant materials, May 31, p. 104
Costs, manufacturing, controlling, Aug. 9, p. 119
Counters, Feb. 23, p. 172; Mar. 8, p. 158; Mar. 22, p. 156, 165; May 3, p. 164; Sept. 20, p. 172; Oct. 4, p. 162; Nov. 15, p. 175
Couplings, fluid, May 3, p. 108; June 28, p. 126; Aug. 9, p. 146
magnetic, slip, Oct. 4, p. 84
shaft, Jan. 12, p. 204; Feb. 9, p. 194; Feb. 23, p. 94, 152; Apr. 5, p. 168; May 17, p. 120, 126, 158; June 14, p. 264; June 28, p. 110, 144; July 12, p. 208; Aug. 9, p. 170; Aug. 23, p. 196; Sept. 20, p. 99, 164; Oct. 18, p. 157; Nov. 15, p. 192
Covers and cases, July 12, p. 94
Creative potential, May 3, p. 119
Cutting material, synthetic, June 14, p. 26
Cycloid speed reducer, June 28, p. 65
Cylinders, June 14, p. 196
hydraulic, Feb. 9, p. 142; July 26, p. 118; Aug. 23, p. 172
pneumatic, Feb. 23, p. 165
pressurized, Feb. 23, p. 135

D

Damper, flow pulsation, Apr. 5, p. 89
hydraulic flow, May 3, p. 206
Damping materials, Apr. 19, p. 119
Data reduction system, Apr. 19, p. 195
Designing and manufacturing, Aug. 23, p. 158
Dials, Aug. 23, p. 202; Sept. 6, p. 154; Oct. 4, p. 132; Nov. 1, p. 81; Dec. 27, p. 106
Diaphragms, Mar. 22, p. 159
Dictating machine, small, Apr. 19, p. 122
Dictation equipment, Dec. 13, p. 94
Differential chain drive, May 3, p. 206
Differentials, gear, Oct. 4, p. 156; Nov. 29, p. 162
miniature, Jan. 26, p. 118
nonslip, Apr. 19, p. 102
Dimension control, Apr. 5, p. 82; Apr. 19, p. 112; May 3, p. 92; May 17, p. 79; June 14, p. 113; June 28, p. 82; July 12, p. 110
Dimensioning, May 31, p. 129
Diode, silicon, Aug. 23, p. 199
Disassembly, design for, May 31, p. 130
Domestic and commercial machines, Feb. 23, p. 192
Domestic equipment, Nov. 15, p. 185; Dec. 27, p. 116
Domestic machines, Mar. 22, p. 206; May 17, p. 152; July 12, p. 198; Aug. 23, p. 238; Sept. 20, p. 222
Drafting, simplified, Apr. 19, p. 96
Drafting equipment, Jan. 12, p. 186; Jan. 26, p. 64, 89, 132; Feb. 9, p. 166, 168; Feb. 23, p. 182; Mar. 8, p. 91; Mar. 22, p. 106, 190; Apr. 5, p. 110, 119, 170; Apr. 19, p. 132, 192; May 3, p. 82, 174, 178; May 17, p. 75, 146; May 31, p. 98, 107, 179; June 14, p. 228, 230; June 28, p. 133, 134; July 26, p. 125; Aug. 9, p. 152, 154; Aug. 23, p. 209, 212; Sept. 6, p. 166; Sept. 20, p. 206; Nov. 1, p. 142; Dec. 13, p. 196, 202; Dec. 27, p. 93, 112
Drawings, perspective, Dec. 13, p. 102
Drawn parts, Jan. 12, p. 121
Drawn titanium, Aug. 23, p. 153
Drill press, portable, June 14, p. 128
Drive shafts, shielded, Feb. 9, p. 154
Drives, adjustable speed, Jan. 26, p. 123, 127; Feb. 9, p. 90; Apr. 19, p. 160; May 3, p. 90; May 31, p. 153, 154; July 12, p. 142; July 26, p. 110; Aug. 9, p. 130; Sept. 6, p. 82; Sept. 20, p. 145; Oct. 4, p. 132, 144; Oct. 18, p. 142; Nov. 29, p. 120
electronic, Nov. 15, p. 123
ultrahigh-speed, Dec. 13, p. 232
Ductility specifying, Jan. 12, p. 133

E

Education, engineering, Apr. 19, p. 14
Electric equipment (see specific type)
Electronic components, heat-resistant, Oct. 18, p. 5
Electronic drives, Nov. 15, p. 123
Electronic equipment, June 14, p. 94; June 28, p. 70; July 26, p. 92; Aug. 9, p. 99; Sept. 6, p. 115, 124; Sept. 20, p. 109; Oct. 4, p. 96; Oct. 18, p. 135; Nov. 15, p. 111; Dec. 13, p. 124; Dec. 27, p. 86
Electronic tube and semiconductor data, May 3, p. 15
Electroplating, Mar. 8, p. 113
Engineer in court, Aug. 23, p. 90
Engineering department (see Management or Drafting)
Engineering operations, evaluating, Nov. 1, p. 74
Engineering organization, Nov. 29, p. 82
Engineers, women, Jan. 12, p. 12
Engineers and scientists, Aug. 23, p. 160
Engines, Feb. 9, p. 133; Mar. 22, p. 112, 162; July 12, p. 12; Oct. 4, p. 6; Oct. 18, p. 5; Nov. 1, p. 136
Extrusion, July 12, p. 126

F

Fabric parts, July 12, p. 142; Sept. 6, p. 153; Sept. 20, p. 160
Fastener finishes, Aug. 23, p. 149
Fasteners, Aug. 23, p. 105; Nov. 15, p. 116
blind, May 3, p. 145; July 12, p. 154
bolts, nuts, screws, Jan. 12, p. 169, 172; Jan. 26, p. 118; Feb. 9, p. 145, 146, 160; Feb. 23, p. 154, 158, 162; Mar. 8, p. 134; Mar. 22, p. 165, 174; May 3, p. 84, 145; May 17, p. 120, 130; May 31, p. 10, 153, 154; June 14, p. 188; June 28, p. 97, 104; July 12, p. 142, 149, 154; July 26, p. 121; Aug. 9, p. 130; Aug. 23, p. 110, 129, 139, 185; Sept. 6, p. 83; Sept. 20, p. 170, 246; Oct. 4, p. 84, 132, 156; Nov. 1, p. 127, 133; Nov. 29, p. 5, 156; Dec. 13, p. 162, 172; Dec. 27, p. 106
clips, Jan. 26, p. 127
insert, Mar. 22, p. 155; Apr. 19, p. 163; May 3, p. 142, 145; May 31, p. 6; July 12, p. 82, 154; Aug. 23, p. 107; Oct. 4, p. 141; Dec. 13, p. 174
locking, Aug. 9, p. 136; Oct. 4, p. 132
miniature, Aug. 23, p. 139
molding plastic, Sept. 20, p. 121
pin, Jan. 26, p. 124; Feb. 9, p. 164; July 12, p. 210; Aug. 23, p. 121
retaining rings, May 31, p. 160; Aug. 23, p. 122; Dec. 27, p. 67
rivet, July 12, p. 149; Aug. 23, p. 96, 124, 181
self-sealing, Aug. 23, p. 145
stud, Aug. 23, p. 129
Fastening and joining plastics, Feb. 9, p. 94
Felt, Jan. 26, p. 91
Fiber, Dec. 27, p. 77
vulcanized, Feb. 9, p. 100
File, technical, Feb. 9, p. 91
Filing engineering drawing, Dec. 27, p. 93
Fillets, gear root, Sept. 20, p. 105
Filters, Feb. 23, p. 178; May 31, p. 12, 159; Aug. 9, p. 147; Nov. 1, p. 130; Nov. 15, p. 143
electronic, Oct. 4, p. 164
Finishes, machined, Apr. 5, p. 134
protective, Aug. 23, p. 149; Nov. 29, p. 169
Fire fighter, remote controlled, Feb. 23, p. 10
Fittings, conduit, Jan. 26, p. 127
pipe, tube and hose, Jan. 26, p. 120; Mar. 8, p. 138; Mar. 22, p. 172; Apr. 5, p. 156, 162; Apr. 19, p. 166; May 31, p. 154; June 14, p. 200, 217; July 12, p. 146; Sept. 6, p. 140, 146, 150, 158; Sept. 20, p. 168, 181; Nov. 1, p. 128; Nov. 29, p. 154
Flange joints, bolted, Nov. 15, p. 119
Flanged connections, Nov. 1, p. 109
Flow meters, Mar. 22, p. 98; Oct. 4, p. 165
Flywheel, hydraulic, Nov. 15, p. 190
Focusing, automatic, for aerial camera, Feb. 9, p. 98
Force indicators, Apr. 19, p. 192
Forging, Jan. 26, p. 76

Forming, cold roll, Dec. 13, p. 106
Fretting corrosion, Jan. 26, p. 104
Friction in mechanisms, Feb. 23, p. 123
Friction materials, Apr. 19, p. 174; Aug. 23, p. 185; Nov. 29, p. 139
Fuel injection system, Dec. 13, p. 8
Fuses, Mar. 8, p. 77
Fusion-temperature controls, Dec. 13, p. 115

G

Gages, force, May 31, p. 180
pressure, etc. (see also Instruments), Nov. 29, p. 87, 180
pressure, continuous, Aug. 23, p. 8
spring tension, Aug. 23, p. 209
Gas liquefier, small, Oct. 18, p. 8
Gas turbine produces fog, Jan. 26, p. 8
Gas turbines, Oct. 4, p. 10
Gasket materials, May 31, p. 117
Gaskets, May 3, p. 84, 140; May 17, p. 76
Gear drives, planetary, Feb. 9, p. 101
Gear ratio with limit stops, Nov. 1, p. 108
Gear ratio selection, Mar. 8, p. 108
Gear shaping, Feb. 9, p. 10
Gear systems, epicyclic, Nov. 29, p. 129
Gears, Jan. 12, p. 137; Jan. 26, p. 62, 69, 132; Feb. 23, p. 103; Mar. 8, p. 134, 167; Mar. 22, p. 132, 142; Apr. 5, p. 93, 144; Apr. 19, p. 123, 172; May 3, p. 117; May 17, p. 90, 134; May 31, p. 153, 164; June 14, p. 196; June 28, p. 110; Aug. 23, p. 262; Sept. 20, p. 105, 162; Oct. 4, p. 10; Oct. 18, p. 173
face, geometry of, Oct. 4, p. 106
plastic, capacity of, Sept. 6, p. 120
testing, July 26, p. 95
Generators, Aug. 23, p. 190
electric, Feb. 23, p. 165; May 17, p. 134; July 12, p. 168
Geneva mechanisms, Mar. 22, p. 107; Dec. 27, p. 91
Germanium rectifiers, Jan. 26, p. 71
Gland, packing, Nov. 15, p. 141
Glass, Mar. 22, p. 175; June 28, p. 114; Aug. 23, p. 5, 15; Nov. 29, p. 154
Glass fiber, Apr. 5, p. 22; July 26, p. 12; Aug. 9, p. 130
Glass-mat laminates, Sept. 6, p. 144; Nov. 1, p. 130
Governor contracts, engineering on, Aug. 9, p. 76
Government reasearch reports, Oct. 18, p. 99
Governors, Feb. 9, p. 162; June 14, p. 193. Aug. 23, p. 260
Graphite, welded, Nov. 1, p. 12
Grinder design, simplified, Aug. 23, p. 138
Grinding, May 17 p. 112
Grinding machine, Oct. 4, 105
Grommets, Feb. 9, p. 148; Aug. 9, p. 146
Gyroscope, vibrating, Nov. 1, p. 14
Gyroscope, Nov. 29, p. 178

H

Handles, Mar. 22, p. 184; May 17, p. 128; Oct. 18, p. 160; Nov. 15, p. 148; Dec. 13, p. 166
Heaters, Jan. 12, p. 180; May 3, 166; June 28, p. 116; Nov. 29, p. 154; Dec. 13, p. 194
Heat exchangers, Jan. 26, p. 6; Apr. 19, p. 160; June 14 p. 198; July 12, p. 83; Aug. 23, p. 170
Heat resistant alloys, June 14, p. 15; Sept. 6, p. 15; Oct. 18, p. 176
Heat transfer, May 31, p. 137
Heating, induction, Nov. 15, p. 84
High-temperature hydraulics, Aug. 9, p. 121
High-temperature materials, May 31, p. 95
Hinges, Jan. 12, p. 182; Mar. 22, p. 174
History of machines, May 3, p. 74; June 14, p. 101; July 12, p. 84
Hose, metallic, Mar. 22, p. 171
nonmetallic, Sept. 6, p. 146; Sept. 20, p. 160; Nov. 29, p. 162
Hydraulic circuits, safe, Nov. 15, p. 107
Hydraulic equipment (see specific type)
Hydraulic lines, pressure losses in, Oct. 4, p. 113
Hydraulic servo components, Nov. 29, p. 114; Dec. 27, p. 73

I

Impact strength in bolts, June 28, p. 104
Impellers, air, Oct. 4, p. 88
two-piece, July 12, p. 83
Increasers, speed, June 14, p. 214
Indicators, flow, June 28, p. 112; July 26, p. 125
lamp, Mar. 8, p. 150
Inductance, variable, Sept. 6, p. 160
Industrial design, Jan. 12, p. 117; Feb. 9, p. 116; Mar 8, p. 99; Mar. 22, p. 119; Apr. 5, p. 112; July 26, p. 10; Sept. 6, p. 79
Inspection, Jan. 26, p. 146; Feb. 23, p. 198; Mar. 8, p. 182; Apr. 5, p. 194; May 3, p. 14, 204; May 17, p. 88; May 31, p. 25, 190; June 14, p. 258; July 12, p. 207; July 26, p. 135; Aug. 23, p. 250; Sept. 20, p. 10, 15, 230; Oct. 4, p. 173; Nov. 29, p. 192; Dec. 13, p. 217
Instrument cases, Oct. 18, p. 182
Instruments, Feb. 9, p. 158, 166, 168; Feb. 23, p. 177, 180, 181; Mar. 8, p. 14, 162, 164; Mar. 22, p. 190; Apr. 19, p. 10, 195; May 17, p. 22, 144; June 14, p. 225, 228, 230, 232; July 12, p. 10, 180; July 26, p. 67, 125; Aug. 9, p. 152; Aug. 23, p. 10; Sept. 6, p. 164, 166, 182; Sept. 20, p. 5, 8, 15, 200, 204; Oct. 18, p. 197; Nov. 1, p. 141, 142; Nov. 15, p. 175, 178; Nov. 29, p. 6, 180; Dec. 13, p. 5, 196, 198; Dec. 27, p. 112
Insulation, Apr. 5, p. 168; May 17, p. 10; May 31, p. 90; June 28, p. 5; Aug. 9, p. 134, 144; Sept. 20, p. 181; Nov. 29, p. 87; Dec. 27, p. 109
Insulators, Mar. 8, p. 154
Interviews, job-performance, Nov. 15, p. 76
Inventions, commercializing, Sept. 20, p. 100
Inventions wanted, May 31, p. 12

J, L

Job-performance interviews, Nov. 15, p. 76
Laminations, core, Oct. 18, p. 189
Language translating machines, July 12, p. 5
Lapping machine, Apr. 5, p. 92
Large engineering projects, Dec. 27, p. 54
Latches, Jan. 12, p. 178; Feb. 9, p. 145; May 3, p. 152
magnetic, Dec. 13, p. 146
Lead-plastic compounds, Nov. 29, p. 174
Library systems and services, July 26, p. 58
Lift truck for hazardous locations, May 31, p. 125
Light alloys, May 31, p. 86
Light amplifier, Mar. 8, p. 8
Lighting, Apr. 5, p. 10; Aug. 9, p. 136, 142; Sept. 20, p. 166; Oct. 18, p. 10, 160, 170, 185, 194
Lighting, engineering department, Mar. 22, p. 88
Lights, indicator, Feb. 9, p. 152
Limit stop, Feb. 23, p. 174
gear ratio with, Nov. 1, p. 108
Linear actuator, Mar. 22, p. 97
Liners, applied, welding, July 26, p. 86
Locking hub, quick-release, Oct. 18, p. 97
Locking plate, slotted, Oct. 18, p. 98
Low cost, designing for, June 14, p. 156
Low-temperature metals, May 31, p. 111
Lubricants, May 31, p. 8, 175; Sept. 6, p. 12
for ball bearings, Oct. 18, p. 101
Lubrication, gear, Jan. 12, p. 137
valve, Dec. 13, p. 101
Lubrication equipment, Jan. 12, p. 166; Mar. 8, p. 76, 152, Apr. 19, p. 186; May 3, p. 170; May 31, p. 166; June 28, p. 124; Aug. 23, p. 192; Sept. 20, p. 114; Oct. 4, p. 159; Nov. 15, p. 146
Lubrication of sleeve bearings, July 12, p. 99

M

Machines (see specific type or process)
Magnesium and alloys, Feb. 9, p. 131; Feb. 23, p. 137; May 17, p. 101; June 14, p. 6; Sept. 20, p. 168
Magnetic amplifiers, Jan. 12, p. 14
Magnets, Mar. 22, p. 159; July 26, p. 5; Nov. 15, p. 172
Maintainability, designing for, June 14, p. 94; June 28, p. 70
Maintenance accesses in electronic equipment, Aug. 9, p. 99
auxiliaries for electronic equipment, Nov. 15, p. 111

instructions, Dec. 27, p. 86
Management, engineering, Jan. 12, p. 92; Jan. 26, p. 56, 64, 90; Feb. 9, p. 80, 91; Mar. 8, p. 70; Mar. 22, p. 88; May 3, p. 119; May 17, p. 62, 106; May 31, p. 78; June 28, p. 56; July 26, p. 104; Aug. 9, p. 76, 83; Aug. 23, p. 158; Sept. 20, p. 5, 10; Oct. 18, p. 6, 15, 148; Nov. 1, p. 74; Nov. 29, p. 82, 141; Dec. 27, p. 5, 10, 54, 93
Manufacturing and designing, Aug. 23, p. 158
Markers, wire, July 12, p. 164
Materials (see specific type)
Materials, engineering, May 31, p. 85
handling, Feb. 9, p. 184; Mar. 8, p. 178; Apr. 5, p. 188; Apr. 19, p. 206; May 3, p. 198; May 31, p. 188; June 14, p. 248; June 28, p. 138; July 12, p. 198; July 26, p. 132; Aug. 23, p. 240; Sept. 6, p. 172; Sept. 20, p. 224; Oct. 4, p. 170; Oct. 18, p. 217; Dec. 13, p. 210; Dec. 27, p. 117
Mathematics, May 17, p. 84
Mechanics, physical, Apr. 5, p. 121
Mechanisms, rolling-contact, July 26, p. 75
Meetings, Jan. 12, p. 24; Jan. 26, p. 22; Feb. 9, p. 24; Feb. 23, p. 22; Mar. 8, p. 27; Mar. 22, p. 5, 6, 22; Apr. 5, p. 5, 8, 10, 24; Apr. 19, p. 5, 6, 24; May 3, p. 5, 8, 24, 25; May 17, p. 5, 24; May 31, p. 25; June 14, p. 5, 12, 28; June 28, p. 10, 22; July 12, p. 24; July 26, p. 15; Aug. 9, p. 22; Aug. 23, p. 25; Sept. 6, p. 6, 10, 24; Sept. 20, p. 26; Oct. 4, p. 22; Oct. 18, p. 24; Nov. 1, p. 15; Nov. 15, p. 24; Nov. 29, p. 24; Dec. 13, p. 24
Merit evaluation, May 31, p. 78
Metals (see specific type)
Metals, Mar. 22, p. 176; June 28, p. 128; July 12, p. 149; Nov. 1, p. 138; Dec. 13, p. 162
removal, chemical, July 26, p. 66
Metal-ceramic friction materials, Nov. 29, p. 139
Metalworking, Jan. 12, p. 201; Jan. 26, p. 144; Feb. 9, p. 184; Feb. 23, p. 194; Mar. 8, p. 179; Mar. 22, p. 208; Apr. 5, p. 188; Apr. 19, p. 208; May 3, p. 200; May 17, p. 152; May 31, p. 188; June 14, p. 250; June 28, p. 140; July 12, p. 200; July 26, p. 132; Aug. 9, p. 163; Aug. 23, p. 242; Sept. 6, p. 174; Sept. 20, p. 227; Oct. 4, p. 170, 171; Oct. 18, p. 217; Nov. 1, p. 145; Nov. 15, p. 186; Nov. 29, p. 190; Dec. 13, p. 210; Dec. 27, p. 117
Metering liquids, Aug. 23, p. 95
Meters, flow, May 31, p. 84
Mill, enclosed, for nuclear fuels, Dec. 13, p. 6
Milling machine, electronically controlled, Nov. 1, p. 5
Mockups, cardboard, Oct. 4, p. 76
Modulator, induction, July 12, p. 144
Mohr's circles, Jan. 12, p. 119
Monitor, vibration, Jan. 26, p. 124
Motors, electric: air compressor, May 17, p. 140
bases, Apr. 19, p. 166
brakemotors, Mar. 8, p. 145, 159; Apr. 5, p. 156
for flywheels, Apr. 5, p. 106
fractional and integral hp, Jan. 12, p. 164, 175; Feb. 9, p. 150; Feb. 23, p. 93, 162, 168, 172; Mar. 22, p. 156, 178; Apr. 19, p. 164, 184, 190; May 3, p. 90; May 17, p. 137; May 31, p. 140, 154; June 14, p. 6, 222; June 28, p. 112, 118; July 12, p. 121; July 26, p. 10; Aug. 23, p. 181; Sept. 6, p. 138, 148, 156; Oct. 4, p. 156; Oct. 18, p. 142, 164; Dec. 13, p. 180
gearmotors, Mar. 8, p. 142; Apr. 5, p. 156, 158; June 14, p. 185; July 26, p. 112, 120; Nov. 1, p. 128; Dec. 27, p. 106
positioning, Feb. 9, p. 156
pump motors, May 17, p. 132
subfractional, Jan. 12, p. 162; Mar. 8, p. 159; Apr. 5, p. 156, 158; Apr. 19, p. 176, 182; May 3, p. 148; May 31, p. 160; July 12, p. 146; Sept. 20, p. 164; Oct. 4, p. 146; Oct. 18, p. 158; Dec. 27, p. 108
winding, Nov. 1, p. 137
Motors, hydraulic, Apr. 5, p. 150; July 12, p. 117; July 26, p. 136; Nov. 15, p. 158
Motors, pneumatic, Feb. 9, p. 160; June 28, p. 112; Oct. 4, p. 134
Motors, torque, Jan. 12, p. 143; Aug. 9, p. 141
Mountings, vibration and shock, Feb. 9, p. 164; Mar. 22, p. 15, 169; May 3, p. 166; June 14, p. 98; Sept. 6, p. 160; Sept. 20, p. 99; Dec. 13, p. 184
Mounting on motors, Apr. 5, p. 88
supports, multiple, May 31, p. 84
Muffler, Feb. 23, p. 152

N

Nameplates, Feb. 9, p. 8; May 17, p. 140
Noise and vibration control, July 26, p. 68
measurement, July 12, p. 10
Numbering systems, May 17, p. 106
Nylon, designing with, Mar. 8, p. 95

O

Office equipment, June 14, p. 252; July 26, p. 126; Nov. 15, p. 5
Ohmmeters, May 31, p. 179
Oil grooves for sleeve bearings, July 12, p. 99
in bearings, June 14, p. 119
One-way motion control, June 14, p. 262
Oscillographic recorder, Apr. 5, p. 170; June 28, p. 133; Sept. 20, p. 202; Dec. 13, p. 198
Oscilloscope, Apr. 5, p. 171

P

Packaging, Mar. 22, p. 212; June 14, p. 254
equipment, Aug. 9, p. 164; Nov. 1, p. 146
Packings, Jan. 12, p. 162; June 28, p. 122
materials, May 31, p. 117
Paint-mixing machines, July 12, p. 116
Pallet truck, Oct. 4, p. 99
Part numbers, ink-stamped, Jan. 26, p. 84
Passenger car, two-level, June 28, p. 14
Patent applications, Oct. 4, p. 85
design, Jan. 12, p. 114
licenses and assignments, June 14, p. 129
licensing, Apr. 5, p. 90
litigation, June 14, p. 154
of combinations, Nov. 15, p. 85
Patterns, expendable plastic, June 28, p. 12
Perspective drawings, Dec. 13, p. 102
Photocells, June 14, p. 206
Photoconductive cells, Aug. 23, p. 192
Photocopier, Jan. 26, p. 132
Phototube, multiplier, Dec. 13, p. 170
Pile driver, largest, Mar. 8, p. 14
Pinion shafts, Feb. 9, p. 145
Pipe, Mar. 22, p. 155; May 31, p. 153; July 26, p. 110
Piston, free, pile driver, Aug. 9, p. 105
plastic-clad, Mar. 22, p. 98
Plant equipment, Apr. 19, p. 210; July 26, p. 134; Dec. 13, p. 128
Plaster-mold castings, magnesium, Feb. 9, p. 131
Plastics, Jan. 12, p. 145; Feb. 9, p. 12; Feb. 23, p. 8, 95, 180; Mar. 8, p. 95; Apr. 5, p. 14; Apr. 19, p. 188; May 3, p. 148, 152, 160, 168; May 17, p. 15, 140; May 31, p. 12; June 14, p. 27, 143, 188; June 28, p. 6, 14, 15, 97; Aug. 9, p. 6; Aug. 23, p. 12; Sept. 6, p. 81, 136; Sept. 20, p. 158; Oct. 4, p. 6, 12; Oct. 18, p. 163; Nov. 29, p. 154; Dec. 13, p. 164; Dec. 27, p. 77
fastening and joining, Feb. 9, p. 94
gears, capacity of, Sept. 6, p. 120
molding, Feb. 9, p. 156; May 3, p. 12, 85; Aug. 23, p. 24
silencer for paper mill, Nov. 1, p. 10
vacuum-formed, Mar. 22, p. 114
Plugs, Feb. 9, p. 152
Pneumatic equipment (see specific type)
Portable tools, Jan. 12, p. 202; Apr. 5, p. 192
Positioning device, Jan. 26, p. 68
Potentiometers, Feb. 9, p. 146; Mar. 8, p. 134, 137; Apr. 5, p. 166; May 3, p. 139, 150; May 17, p. 137; May 31, p. 172; June 14, p. 200, 208; June 28, p. 126; July 26, p. 121; Aug. 23, p. 170; Sept. 6, p. 134, 136, 144, 153; Sept. 20, p. 188; Oct. 4, p. 154; Oct. 18, p. 189; Nov. 15, p. 141; Nov. 29, p. 177
Powder metallurgy, Jan. 26, p. 108; Mar. 8, p. 113; May 17, p. 123; July 26, p. 5
Power plant equipment, Apr. 19, p. 212; May 17, p. 154; Aug. 23, p. 248; Sept. 6, p. 176; Oct. 18, p. 222; Nov. 15, p. 187
Power supplies, dc, subminiature, Aug. 23, p. 170
transistorized, Mar. 8, p. 148
Performing and welding, Apr. 19, p. 148
Press brakes, Apr. 5, p. 96

Pressure losses in hydraulic lines, Oct. 4, p. 113
pickup, Sept. 20, p. 204
transmitter, Aug. 23, p. 204
Printed circuits, Apr. 19, p. 12, 122; May 3, p. 5
Printer, magnetic, May 17, p. 6
Processing, Jan. 12, p. 202; Feb. 9, p. 188; Mar. 8, p. 182; Mar. 22, p. 212; Apr. 19, p. 214; May 17, p. 15, 152; June 14, p. 256
equipment, Feb. 23, p. 196; May 3, p. 202; May 31, p. 190; July 12, p. 204; Aug. 9, p. 165; Sept. 6, p. 178; Sept. 20, p. 228; Oct. 4, p. 99, 172; Oct. 18, p. 223; Nov. 1, p. 147; Nov. 15, p. 189; Nov. 29, p. 191; Dec. 13, p. 213
Product development, Jan. 26, p. 56
improvement, Oct. 18, p. 148
Products, profitable, Feb. 9, p. 80
Projector, automatic, Jan. 12, p. 130
Protecting design ideas, Mar. 8, p. 92
Protector, pressure-gage, Oct. 18, p. 157
Prototype appearance models, Mar. 8, p. 118
Pulleys (see also sheaves)
Pumps, Jan. 12, p. 162, 170, 182; Jan. 26, p. 152; Feb. 9, p. 88; Feb. 23, p. 168; Mar. 8, p. 186; Mar. 22, p. 216; May 3, p. 208; May 17, p. 160; May 31, p. 194; July 26, p. 6, 136, 138; Aug. 9, p. 150; Aug. 23, p. 174, 196; Sept. 6, p. 182; Sept. 20, p. 178, 244; Nov. 1, p. 148; Nov. 29, p. 166, 177, 198; Dec. 13, p. 174, 234; Dec. 27, p. 120
control volume, Oct. 4, p. 83
hydraulic, July 12, p. 117, 152
pneumatic, July 12, p. 168

R

Radar beacon, July 26, p. 6
Radar speed meter, Oct. 18, p. 6
Radio, automatic warning, Nov. 1, p. 14
paging system, Feb. 23, p. 6
two-way lightweight, Sept. 6, p. 22
interference reduction, Sept. 6, p. 124
Rail coach, lightweight, Sept. 6, p. 10
Railroad train, double-ended, Dec. 27, p. 14
Recorders, May 17, p. 146; Sept. 6, p. 5; Dec. 13, p. 202
graphic, May 3, p. 176
tape, miniature, Aug. 9, p. 14
Rectifiers, Feb. 9, p. 163; Mar. 8, p. 144; Mar. 22, p. 156; May 17, p. 110; June 14, p. 22; July 12, p. 178; Aug. 23, p. 199; Nov. 1, p. 134; Nov. 15, p. 143; Nov. 29, p. 156
germanium, Jan. 26, p. 71
Reducers, speed, Mar. 8, p. 138; Mar. 22, p. 171, 172; Apr. 19, p. 179; May 3, p. 162; May 17, p. 123; June 28, p. 65, 112; July 12, p. 148; Aug. 9, p. 148; Aug. 23, p. 184; Nov. 15, p. 143, 156; Dec. 13, p. 166, 168
Regulators, flow, Feb. 23, p. 94; June 28, p. 110
pressure, Feb. 23, p. 156, 170; Dec. 13, p. 162, 191, 232
vacuum, Mar. 8, p. 145
voltage, May 3, p. 12; May 17, p. 85; June 14, p. 99
Relays, Jan. 12, p. 164; Jan. 26, p. 120, 130; Mar. 8, p. 158; Mar. 22, p. 176; Apr. 5, p. 144; Apr. 19, p. 188; May 3, p. 155; June 14, p. 190, 211; June 28, p. 64, 120; July 12, p. 150, 166, 172; Aug. 9, p. 132; Sept. 6, p. 152; Oct. 4, p. 152; Oct. 18, p. 163, 173; Nov. 15, p. 141, 150, 171; Dec. 27, p. 104
Remote handling equipment, Nov. 15, p. 15
Report writing, simplified, Jan. 26, p. 90
Research and development, Jan. 26, p. 56, 132, 136; Feb. 23, p. 142; Mar. 22, p. 192; May 17, p. 12; May 31, p. 176; Aug. 9, p. 5, 10; Oct. 4, p. 164, 165; Nov. 29, p. 5
Resistors, May 31, p. 175; Aug. 9, p. 130; Aug. 23, p. 181; Nov. 1, p. 132
Retaining ring assemblies, Dec. 27, p. 67
Rheostats, Apr. 5, p. 164; Apr. 19, p. 176; Nov. 29, p. 164
Rivet process, extruded, June 28, p. 63
Rolling, thread and form, Jan. 26, p. 101
Rolling-contact mechanisms, July 26, p. 75
Rotational-stop mechanism, Dec. 27, p. 119
Rotor, external, Feb. 23, p. 93
Rotors, permanent magnet, May 3, p. 122
Rubber, Jan. 26, p. 62; Apr. 19, p. 128; May 17, p. 138; July 12, p. 6, 126, 166, 178; Sept. 20, p. 150; Oct. 4, p. 14, 125; Nov. 15, p. 156; Dec. 13, p. 168; Dec. 27, p. 108
tire fuel tank, Feb. 23, p. 12

S

Safety, factors of, July 12, p. 76
Satellite, earth, Nov. 1, p. 82
Saturable reactors, Oct. 4, p. 136
Scientists and engineers, Aug. 23, p. 160
Screws, power, Aug. 23, p. 94; Sept. 6, p. 81, 180; Nov. 29, p. 106
Seals, Feb. 23, p. 202; Apr. 19, p. 216, 218; May 3, p. 208; June 14, p. 193; June 28, p. 64, 112, 120; Sept. 20, p. 181, 196; Oct. 4, p. 146; Oct. 18, p. 14; Nov. 1, p. 140; Dec. 13, p. 162
closure, Sept. 6, p. 97
mechanical, Jan. 12, p. 162, 167, 203; Feb. 23, p. 200; Mar. 22, p. 218; Apr. 5, p. 198, 200; Apr. 19, p. 216; June 14, p. 190, 262; June 28, p. 144; July 26, p. 138; Aug. 23, p. 260; Sept. 6, p. 180; Sept. 20, p. 175; Oct. 4, p. 174; Oct. 18, p. 238; Dec. 13, p. 236; Dec. 27, p. 119
Servos, Jan. 12, p. 162; Apr. 5, p. 160; May 3, p. 174; May 31, p. 5; June 28, p. 74; July 26, p. 78; Aug. 9, p. 106; Aug. 23, p. 172; Nov. 29, p. 114; Dec. 13, p. 133; Dec. 27, p. 73
amplifiers, Apr. 5, p. 148
systems, analyzing, Nov. 1, p. 87
Shaft extensions, Nov. 1, p. 138
positioning, Apr. 5, p. 196
suspension, magnetic, June 14, p. 260
Shafts, flexible, Jan. 26, p. 62; July 12, p. 170
stepped and tapered, deflections of, Aug. 9, p. 111
Shearing moving webs, May 3, p. 101
Sheaves, May 31, p. 194; Dec. 27, p. 109
Ships, nuclear powered, Nov. 29, p. 23
Silicones, Apr. 5, p. 146; May 17, p. 138; Dec. 13, p. 168
Silver and alloys, Sept. 6, p. 15
Simulators, analog, Aug. 9, p. 86
Slide rule, Mar. 22, p. 192
Solar energy, Oct. 4, p. 5
Soldered joints, June 14, p. 123
Soldering, May 17, p. 10
Solenoids, Apr. 5, p. 144; Apr. 19, p. 160; July 26, p. 112; Sept. 6, p. 140; Dec. 13, p. 182
ac push-pull, July 26, p. 100
Speedometers, Apr. 19, p. 15
Spindles, Apr. 5, p. 146
Springs, Mar. 8, p. 152; Apr. 19, p. 133; June 14, p. 131; June 28, p. 6; July 26, p. 110; Oct. 18, p. 192
air, May 3, p. 22
alloys, May 31, p. 121
Sprockets, May 3, p. 206; May 17, p. 128
Stablizers, ship, Apr. 19, p. 22
Stacked assembly of electronic components, Oct. 18, p. 96
Stampings, Aug. 9, p. 98
metal, strengthening, Nov. 1, p. 104
Standards, drafting, July 12, p. 5
NEMA, for motors, July 12, p. 121
for guided missiles, Jan. 26, p. 14
Starters, motor, Jan. 12, p. 178; Apr. 19, p. 182
Steel, Jan. 26, p. 10; Mar. 8, p. 160; May 3, p. 96; Nov. 15, p. 128, 162
stainless, Oct. 18, p. 114
Steering, power, for tractor, July 12, p. 96
Stop mechanism, rotational, Aug. 9, p. 168
Strain gages, Apr. 5, p. 171
Stress analysis, Jan. 12, p. 119; Mar. 8, p. 115; May 17, p. 103, 112
Studs, mounting, Oct. 18, p. 178
Suspension joint for automobiles, June 14, p. 14
Switch engine, rubber-tired, Apr. 19, p. 118
Switchboard, transistor-equipped, May 31, p. 15
Switches, Jan. 12, p. 164, 168, 172; Feb. 9, p. 145; Feb. 23, p. 156, 160, 202; Mar. 8, p. 148, 154, 164; Mar. 22, p. 99, 168, 184; Apr. 5, p. 160; Apr. 19, p. 174, 186; May 3, p. 22, 139, 162, 164; May 31, p. 83; June 28, p. 110; July 12, p. 150, 159; July 26, p. 110, 115; Aug. 23, p. 170, 206; Sept. 6, p. 142; Sept. 20, p. 158, 170, 175, 193, 196; Oct. 4, p. 150, 160; Oct. 18, p. 157, 163; Nov. 1, p. 127, 133, 135; Nov. 15, p. 152, 160; Dec. 13, p. 160, 184; Dec. 27, p. 104, 108

limit, Oct. 4, p. 138
pressure, Jan. 26, p. 118; May 3, p. 168
Swivel joints, Feb. 9, p. 142; May 17, p. 124; Sept. 6, p. 154, 162; Nov. 1, p. 128
Systems engineering, Nov. 1, p. 120
hydraulic, Feb. 23, p. 108; Aug. 9, p. 121; Nov. 15, p. 107; Dec. 13, p. 133

T

Tachometers, May 17, p. 138; July 12, p. 159; Sept. 6, p. 134, 164; Sept. 20, p. 112, 172, 190; Oct. 18, p. 157, 178; Nov. 1, p. 129; Dec. 27, p. 62
Tags, identification, Feb. 9, p. 8
Tanker, reactor-powered, Oct. 18, p. 14
Tap-drill sizes, May 31, p. 98
Tape, Mar. 8, p. 137; Oct. 18, p. 248
insulating, May 31, p. 159
Tapped holes, blind, July 26, p. 99
Tapping screws, June 28, p. 97
Television camera for internal inspection, Sept. 20, p. 10
industrial, July 12, p. 8
portable, Mar. 22, p. 6
Temperature probe, Oct. 18, p. 200
manufacturing, specifying, Aug. 9, p. 91
Tension control, automatic, Mar. 8, p. 184
Terminals, Apr. 5, p. 146; Oct. 18, p. 167; Nov. 15, p. 168; Dec. 13, p. 172
Testing, Jan. 26, p. 95, 136, 146; Feb. 23, p. 142, 181, 198; Mar. 8, p. 15, 182; Apr. 5, p. 12, 194; May 3, p. 204; May 17, p. 10; May 31, p. 190; June 14, p. 258; July 12, p. 207; July 26, p. 135; Aug. 9, p. 15; Aug. 23, p. 214, 250; Sept. 6, p. 164; Sept. 20, p. 24, 230; Nov. 15, p. 162; Nov. 29, p. 105, 192; Dec. 13, p. 217
electronic equipment, Sept. 6, p. 115
gears, July 26, p. 95
vibration, Mar. 22, p. 100
Thermometers, Mar. 8, p. 167; July 12, p. 184; Nov. 29, p. 180
Thermostats, Jan. 12, p. 184; Apr. 5, p. 146; Apr. 19, p. 68; May 31, p. 166; July 12, p. 152; Aug. 23, p. 170; Sept. 20, p. 188; Nov. 15, p. 178; Nov. 29, 159; Dec. 27, p. 108
Thread, interference fit, Sept. 6, p. 83
rolling machine, Apr. 19, p. 117
Tie rods, June 14, p. 217
Timers, Jan. 12, p. 164, 183; Jan. 26, p. 120; Feb. 9, p. 170; Mar. 8, p. 26; May 3, p. 160; May 17, p. 120; June 28, p. 122; July 12, p. 162; July 26, p. 124; Aug. 23, p. 14, 176; Sept. 6, p. 152; Oct. 18, p. 176; Nov. 15, p. 150; Nov. 29, p. 172; Dec. 27, p. 106, 108
Tips and techniques, June 14, p. 109, 130; June 28, p. 62, 69; July 12, p. 81, 93, 102, 115; July 26, p. 74, 84, 91; Aug. 9, p. 80, 90, 98; Aug. 23, p. 104, 144, 148; Sept. 6, p. 113, 114, 118; Sept. 20, p. 104, 111, 120; Oct. 4, p. 82, 95, 98, 112; Oct. 18, p. 106, 113, 134, 138; Nov. 1, p. 79, 91, 112; Nov. 15, p. 82, 106, 115; Nov. 29, p. 85, 118, 138; Dec. 13, p. 99, 115, 136; Dec. 27, p. 60, 66, 76, 85
Tires, oversize, for airplanes, June 14, p. 24
Titanium & alloys, Jan. 26, p. 75; Apr. 5, p. 134; Aug. 23, p. 153, 199
Torch, gas, July 12, p. 10
Torque control, Mar. 22, p. 156; Nov. 29, p. 119
converters, hydraulic, Apr. 5, p. 126, 144; May 3, p. 158; July 26, p. 136
motor, Apr. 19, p. 163
Trail markers, electronic, Sept. 20, p. 6
Train, lightweight, Mar. 8, p. 5
Training design engineers, Oct. 18, p. 92
Transducers, July 12, p. 184
accurate positioning, Nov. 15, p. 83
force, Oct. 18, p. 197
pressure, Feb. 23, p. 158; Mar. 22, p. 156
Transformers, Feb. 23, p. 152; Nov. 15, p. 180; Nov. 29, p. 182
Transistors, Jan. 12, p. 176; Jan. 26, p. 6; Feb. 23, p. 5; Mar. 8, p. 160; Apr. 19, p. 8; Dec. 13, p. 186
Translator, mechanical, Nov. 15, p. 22
Transmissions, adjustable speed, July 12, p. 156; Aug. 23, p. 194, 202; Sept. 20, p. 158; Nov. 15, p. 190; Dec. 27, p. 61
variable speed, Feb. 9, p. 6, 145; Feb. 23, p. 200; Mar. 22, p. 178; Apr. 5, p. 126, 166; May 17, p. 120, 126, 142; May 31, p. 154, 192; June 14, p. 100, 185, 214
Truck, small, four-wheel drive, Dec. 13, p. 5
Tube cooling inserts, Feb. 9, p. 154
Tubes, rectangular and elliptical, section factors for, Oct. 18, 139
round, bending, Sept. 20, p. 141
Tubing, Feb. 23, p. 180; Mar. 8, p. 115; Apr. 19, p. 179; July 12, p. 164; Aug. 9, p. 130
Turbines, gas, for automobile, Mar. 8, p. 12
gas, for helicopter, Mar. 8, p. 8; June 14, p. 8
gas, small, Feb. 9, p. 133
steam, Nov. 15, p. 6
Turnbuckles, Nov. 15, p. 165
Typewriter, electronic, Nov. 1, p. 10
word and phrase, Mar. 22, p. 8
type, interchangeable, Mar. 22, p. 14

U, V

Ultrasonic energy generator, Nov. 1, p. 5
Undercutting gear teeth, Apr. 19, p. 123
Union, engineer's May 31, p. 24
Universal joints, May 17, p. 160; Sept. 6, p. 142; Nov. 15, p. 160
Valves, Jan. 12, p. 167, 174, 182; Jan. 26, p. 118; Feb. 9, p. 150; Feb. 23, p. 177; Mar. 8, p. 156; Mar. 22, p. 99, 183, 187; Apr. 5, p. 154; Apr. 19, p. 100, 163, 168, 170, 134, 142; Aug. 23, p. 176, 188; Sept. 6, p. 134, 156; p. 110, 130, 142; July 12, p. 156, 210; Aug. 9, p. 132, 134, 142; Aug. 23, p. 176, 188; Sept. 6, p. 134; 156; Sept. 20, p. 158, 166, 178; Oct. 4, p. 148; Oct. 18, p. 98, 167, 180; Nov. 1, p. 132, 150; Nov. 15, p. 141, 150, 155; Dec. 13, p. 160, 164, 177; Dec. 27, p. 108, 120
check, May 17, p. 132
hydraulic, Jan. 26, p. 61, 120, 124, 127; Feb. 23, p. 152; Mar. 8, p. 150; Apr. 5, p. 162, 198; May 3, p. 208; May 17, p. 120; June 28, p. 128, 144; July 12, p. 208; Sept. 6, p. 138; Nov. 1, p. 135; Dec. 27, p. 104
lubrication, Dec. 13, p. 101
measuring, June 14, p. 27
mixing, Sept. 6, p. 148
pneumatic, Jan. 26, p. 120, 127, 154; Mar. 22, p. 155; May 31, p. 156, 169, 174; July 26, p. 112, 115; Aug. 23, p. 181; Nov. 1, p. 127
Van, freight, for rails and roads, May 31, p. 14
Varistor, discharge, Nov. 1, p. 139
Vernier dials, July 26, p. 120
Vibration absorbers, dynamics, Sept. 20, p. 134
cam, minimizing, Aug. 9, p. 103
control in welded structures, July 12, p. 103
damper, Aug. 9, p. 168
damper, power, Aug. 9, p. 93
damper, torsional, Sept. 20, p. 246; Nov. 29, p. 198
detector, June 14, p. 193
meter, May 3, p. 176
testing, Mar. 22, p. 100
Vibrators, electromagnetic, May 17, p. 67
Vibrometer, Oct. 4, p. 164
Voltage stabilizer, Nov. 1, p. 127
Voltmeter, Jan. 12, p. 136; June 28, p. 134

W, X, Z

Washers, July 12, p. 144; Aug. 23, p. 135
lock, Aug. 23, p. 135; Sept. 20, p. 246
Way protector, May 3, p. 155
Weapons, new U. S., Nov. 15, p. 5
Wear evaluation, Jan. 12, p. 101
resistant materials, May 31, p. 126
Weighing, May 3, p. 178
moving vehicles, Mar. 22, p. 10
Welding, Apr. 5, p. 97; Apr. 19, p. 103, 158; May 3, p. 96
applied liners, July 26, p. 86
Winding, plastic encased, Apr. 19, p. 101
Wipers, way, Sept. 20, p. 186
Wire and wire products, Feb. 9, p. 111; Aug. 23, p. 199
Wire baskets made automatically, Dec. 13, p. 128
holder, Nov. 29, p. 196
Wiring, electric, July 26, p. 92
hardness, Jan. 12, p. 176
Writing, technical, Apr. 5, p. 111
X-ray panoramic, Mar. 8, p. 5
Zirconium, Mar. 8, p. 122